

Applicant: Forster et al.
Serial No.: 10/021,879
Group Art Unit: 1711

REMARKS

Claims 1-9 remain in the application with claims 1 and 8 in independent form.

Claims 1-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over BASF in view of Schneider et al. The Examiner relies on BASF for disclosing two outer layers of metal having a thickness of 2 to 20 mm and a core layer of polyisocyanate-polyaddition product having a thickness of from 10 to 100 mm. The Examiner further relies on BASF for disclosing that the polyaddition product is the reaction product of isocyanates with an isocyanate-reactive component in the presence of 0.1 to 50 vol.% of gas and with catalysts and additives being optional. The Examiner admits that the BASF reference does not indicate the use of inorganic acids in the polyurethane reaction mixture as required by claims 1 and 8. The Examiner relies on Schneider et al. for disclosing the use of inorganic reaction retarders in combination with polymer polyols, foam stabilizers, catalysts, blowing agents, and polyisocyanates to form a foam.

Rejection of a claim under 35 U.S.C. § 103(a) based on a combination of references requires that there be a specific showing by the Examiner of a suggestion, teaching, or motivation found within the references themselves which would lead one of ordinary skill in the art to combine the prior art references in a way to make the rejected claims obvious. In Re Su Lee, 277 F.3d 1338 (Fed. Cir. 2002). Absent such a suggestion, teaching or motivation, the combination of prior art references in a rejection under 35 U.S.C. § 103(a) is improper and must

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be withdrawn. In addition, the Examiner cannot disregard the complete teachings found in any references which are so combined.

With respect to the present application, the combination of BASF with Schneider et al. is improper and does not render Applicants' invention obvious. Schneider et al. is directed toward a process for preparing a foaming reaction mixture comprising a polyisocyanate component, a reactive hydrogen containing component, water and/or organic blowing agents and optionally other auxiliary agents and additives characterized by: a polyisocyanate component that is a mixture of at least one polyisocyanate with "an organic compound which splits off carbon dioxide under the catalytic influence of basic compounds" and a reactive hydrogen component that includes a basic compound and/or basic compound chemically built into a reactive hydrogen component that acts as a catalyst for the catalytic decomposition of the organic compound. Schneider et al. reveals in Col. 2, lines 27-31 that "the major effect achieved when polyurethane foams are produced by this process is that the flow time, that is to say the difference between the fiber time and the cream time of the foaming process, is substantially increased."

Schneider et al. states in Col. 3, lines 20-25 that "furthermore, the carbon dioxide liberating reaction which is essential to the present invention takes place much more spontaneously when the components are brought together than the known NCO/H₂O reaction. It is this spontaneity which reduces the cream time so that the flow time may be increased." Schneider et al. is directed toward producing hard polyurethane foams having a dense outer skin

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(see the Abstract and Specification). The Examiner cannot ignore these additional teachings of Schneider et al. when attempting to make the combination between BASF and Schneider et al.

The present invention is directed toward producing a foam between two metal plates to produce a structural composite element. Thus, it is unlike the foam produced in Schneider et al. which is produced in a closed mold and leads to a foam having a dense outer skin which is very compact and hard with a core of foam. The present invention does not utilize the carbon dioxide liberating compound or the basic compound that is disclosed to be essential in the invention of Schneider et al. The combination of BASF with Schneider et al. might produce a foam that could be utilized in a closed mold, but would not produce the composite element of the present invention. The foam produced using the disclosed method and materials of Schneider et al. is one having a hard outer skin that would not allow the foam to bind to the two metal layers that are found in both independent claim 1 and independent claim 8 of the present invention. In order to form the composite element claimed in claims 1 and 8 of the present invention, it is essential that the inner polyurethane layer adhere to the two outer metal layers and such would not happen utilizing the polyurethane system disclosed in Schneider et al above or with that disclosed in BASF. The Examiner is utilizing Applicants' own invention in a hindsight manner to provide the motivation for combining Schneider et al. with BASF.

In summary, the rejection of claims 1 and 8 and the claims which depend therefrom based on a combination of BASF with Schneider et al. under 35 U.S.C. § 103(a) is improper and should be withdrawn.


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Accordingly, it is respectfully submitted that the Application, as amended, is now presented in condition for allowance, which allowance is respectfully solicited. Applicant believes that no fees are due, however, if any become required, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account 08-2789. Further and favorable reconsideration of the outstanding Office Action is hereby requested.

Respectfully submitted,

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Date


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Nina Moats

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